

Amendments to the Drawings

The attached sheet of drawings includes changes to Figure 5. This sheet, which includes Figure 5, replaces the original sheet including Figure 5.

Attachment: Replacement Sheet of Figure 5.

REMARKS

By the present amendment the applicant has amended claims 1, 4, and 6 so as to overcome the Examiner's objections thereto and rejection of claim 4 under 35 U.S.C. 112, first paragraph and claims 1 and 6 under 35 U.S.C. 112, second paragraph.

In the above identified Office Action the Examiner required a replacement sheet of Figure 5 which shows three gear plates as disclosed in the specification. Submitted herewith is a replacement sheet of Figure 5 as required by the Examiner.

In the Office Action the Examiner rejected claims 1, 2, and 4 to 6 as being anticipated under 35 U.S.C. 102(b) by U.S. Patent No. 5,624,336, to Kojima. It is the applicant's contention that the present invention as embodied by the rejected claims is significantly different from the cited Kojima reference in structure, purpose and effect.

In the present invention, the outer guard is integrally formed with the inner guard while the inner guard is provided with an auxiliary guard. The operation stroke of the outer guard is the same as the operation stroke of the inner guard for the sake of integral operation of the outer guard, inner guard and auxiliary guard. On the other hand, in the Kojima

reference the outer guard and inner guard are individual parts and operated respectively so that the operation stroke of the outer guard is different from the operation stroke of the inner guard.

The present invention enhances the shifting performance of the transmission from the small diameter gear to the middle diameter gear by the inner guard being provided with the auxiliary guard while the chain is prevented from being interposed between the inner guard and the large diameter gear. Hence, the chain is shifted smoothly by elastic deformation of the auxiliary guard when the chain is shifted from the middle diameter gear to the large diameter gear.

In the Kojima reference, since the outer guard and inner guard are individual parts and operated respectively, Kojima can set the operation strokes caused by a certain wire stroke so that the operation stroke of the outer guard is greater and the operation stroke of the inner guard is smaller. As a result, the twisting angle of the return spring is reduced as compared with a conventional transmission thereby resulting in light shifting.

Although the additional prior art cited by the Examiner was not applied against the claims, the Examiner was of the opinion that it was pertinent to applicant's disclosure. In light thereof, the applicant will make a brief statement as to each cited reference.

U.S. Patent No. 4,613,319 relates to technology for eliminating noises caused by contact of the chain with the outer guard and with the inner guard by providing recesses in the outer guard and inner guard for prevention of contact with the chain in the area where the chain passes through.

U.S. Patent No. 4,551,121 relates to technology for enhancing shifting from a smaller diameter gear to a larger diameter gear by providing at the inner guard an enlarged portion between an initial contact position where the chain is in contact with the inner guard when intended to be shifted and a final contact position where the chain and the inner guard are kept in contact just before the completion of the chain shift.

U.S. Patent No. 4,604,078 is similar in purpose to the present invention. However, in the reference, a shift plate

corresponding to the auxiliary guard in the present invention is pivoted to the inner guard and biased by a spring. Hence, the configuration and structure of this reference is different from the present invention and is complex and costly.

U.S. Patent No. 4,279,172 relates to an energy saver mechanism for a spring.

U.S. Patent No. 4,237,743 relates to technology for attaching the chain guide to the inner guard and for preventing the chain from coming off inwardly from the smaller diameter gear.

In view of the above, it is respectfully submitted that claims 1, 2, and 4 to 6 are not anticipated by U.S. Patent No. 5,624,336, to Kojima and should therefore be allowed so that

the case may be passed to issue. Such action is respectfully solicited.

Respectfully submitted,
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I hereby certify that this document is being deposited with the U.S. Postal Service on July 15, 2008 as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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